DOCUMENT RESUME

ED 158 950 RC 010 728

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TITLE Short-Term Training: Can Modules Be Nodules?
PUB DATE [77]
NOTE 14p.; An earlier version of this paper was presented to the Annual Meeting of the Rural Sociological Society (New York City, August, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *College Faculty; *Group Activities; *Learning Modules; *Regional Schools; Rural Development; Short Courses; *Small Colleges; *Social Science Research

ABSTRACT

The potential of regional schools and colleges in generating social science information for rural development organizations has been discounted because of the commonly held assumption that the combination of low resources and relatively poorly trained or overworked staff will not yield satisfactory results. Often, however, the significant limiting factor is access to skills normally available only through lengthy and expensive graduate degree programs. An alternative to graduate education is modular instruction featuring short term training to develop broadly analytical skills. Four modules were implemented in 1975 at non-metropolitan universities. Common analytical content included: (1) the logic of hypothesis testing; (2) alternatives to survey data collecting, including secondary data utilization, key informant interviewing, participant observation, and various combinations of techniques; and (3) structural and compositional effects. Group exercises formed the core of organization because the module implementation and evaluation was not the development of individual but rather the enhancement of group capabilities. Short term training to develop and sustain social science input has the potential for releasing the significant capabilities bottled up in many regional educational institutions. (DS)

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SEP 1978

SHORT-TERM TRAINING: CAN MODULES BE NODULES?

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[1977]

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RC 01 0728

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Introduction

The need to somehow incorporate greater use of social information into rural development program formulation, implementation and evaluation has been dramatically increased by concerns for the equity implications of program designs [World Bank, 1975;Lele, 1976]. However, developing and maintaining sensitivity to appropriate social information is in reality a number of quite complex organizational and substantive tasks. Two overall approaches to these tasks can be identified.

The first approach is to internalize a feedback capacity within the appropriate agencies. This approach has three problems: (1) almost unavoidable constraints on negative findings inherent in the limits on questions likely to be raised; (2) the discomfort action agencies will often have with any research function; and (3) the possible basic incompatibility of an internalized social information generating and analysis capability with oft-present desire for greater local-level input in goal setting and project design.

A second approach is for agencies to depend on external parties capable of generating and analyzing appropriate social information. This approach also has three problems: (1) the frequent association of external research with insufficient knowledge of program goals;

(2) the basic distrust and cynicism which often characterizes relationships between action agencies and social research organizations; and (3) the possible basic incompatibility of significantly expanded participation of 'outsiders' in program goal setting and performance evaluation with the expectations and accountability assigned to agencies by higher level public authorities and maintained by the ethos of professionals within the agency. The usual external party is a "Center of Excellence".

Another option, usually discounted if not dismissed altogether, is turning to regional schools and colleges. This option has received little attention because of the common assumption that the combination of low resources and relatively poorly trained and overworked staff would not yield satisfactory results. This paper will argue that although a negative assessment of regional schools and colleges will often be correct, in some instances the significant limiting factor is not capability or resources but access to skills normally available only through lengthy and expensive graduate degree programs. The objective of this paper is to describe an instructional approach which has been used to enhance the role of regional educational institutions in generating social science information. The major argument which will be made is that short-term training which focuses on group reinforcement and which emphasizes acquisition of analytical skills can release the significant capabilities bottled up in many regional educational institutions.

Short Term Training: The Problem Defined

The development of specific data collection research skills,--for example interview schedule construction, survey techniques, etc.,--through short intensive courses is well established. However, can more broadly applicable analytical skills, --for example alternative modifications of survey analysis, the logic of hypothesis testing and research design, the logic of multivariate analysis,--be developed as well in the same condensed format? More generally, can modular forms of instruction be characterized as modes of curriculum enrichment or as modes of curriculum compression with inevitable and harmful deletions and losses? The most probable common answer would be that the use of modules is a form of compression that is best limited to acquisition of very specific skills. Focusing on broader analytical capabilities and encouraging a cautious attitude towards the use of any specific research skill would be viewed as reasonable objectives only where participants have homogenous and advanced backgrounds,--that is, the module would really be a refresher course rather than the vehicle for the introduction of new materials.

Developing Researchers or Training Technicians?

The major emphasis in modular social science research training has been on one type of data collection,--the sample survey.[1] This type of training can address a valid need for research technicians, but does it contribute to the expansion of autonomous research capabilities? It is often the case that trained individuals are used subsequently to implement research designed by the same individuals

who trained them. While it might then be argued that the training facilitates greater research outputs for more highly educated researchers, closer examination suggests that the availability of a cadre of survey technicians tends to encourage demands for rapid turnaround research and encourages analysis that is several steps removed from data collection and familiarity with the distortions that may reside there.

The problem with research training that is really technician training is that by focusing on single methodologies for data collection, a proper 'toolkit' for grounded problem identification and conceptual development is unlikely to emerge. This problem has two particularly important manifestations. The first is the tendency to rely on borrowed (and transferred) concepts without sufficient testing for appropriateness. The result is a style of selective data collection which illustrates a concept's indicators without assessing the plausibility of whether the concept itself is operating.[2] The second and most significant manifestation is the maintenance of dualism in the social sciences. Funding and professional opportunities continue to concentrate on the few 'Centers of Excellence'.

The Assumptions of an Alternative

A standard reply to the aforementioned critique of modular training programs in the social sciences is that meeting the need for more sophisticated research capabilities requires, at the least, two components: first, graduate education and second, individual growth within the context of viable professional communities. But what is to be done when (1) the option of suspending what research is occuring to

allow young faculty time to undergo graduate education is not feasible or acceptable and (2) national professional communities are not a current reality? An alternative to graduate education can be proposed which uses these two constraints as starting points. The alternative is a modular curriculum designed around three assumptions:

1. A principal objective for module implementation and evaluation is not the development of individual capabilities, but rather the enhancement of group capabilities. the focus on group learning opens up possibilities for accelerated learning and encourages the creation of an ambience that can sustain continued learning after the course. Participants in training will thus be groups of young faculty from the same institutions.
2. Multi-diciplinary participant composition is not simply desirable,--it is a necessary condition for group maintenance. Coping with heterogeneity equips the group for a broader variety of potential problem-solving tasks. It lays the foundation for the development of flexibility.
3. The development of broader analytical capabilities requires simultaneous discussions of alternative methodological and substantive frameworks.

The Alternative Described

During 1975, four modules were implemented in two kinds of settings: one in which research groups in non-metropolitan universities were in place but defined around administrative rather than substantive tasks;[3]

another in which the groups had not been formed prior to the module.[4] While substantively the four modules covered a variety of areas[5], certain common analytical content can be identified:

1. The logic of hypothesis testing. This included the exclusion of plausible alternative hypostheses; sources of distortion to internal and external validity, particularly distortions due to data collection and overall design strategies, and various remedial strategies. These themes were continually reinforced through assessment of evaluation-research case studies. In addition, participant groups were asked to incorporate these considerations explicitly in all module exercises. For example, in one module, participants were led through a series of design exercises under alternative assumptions about the outputs required and the resources available to support the study. In all the modules, groups were asked to analyze all materials in terms of the links between design and analysis decisions.

2. Alternatives to survey data collection. Participant skills in survey data collection were usually relatively well developed. Therefore, while some attention was paid to survey data collection, greater emphasis was given to alternatives including: secondary data utilization, key informant interviewing, participant observation, and various combinations of techniques.

3. Structural and compositional effects. Serious attempts at multi-level analysis are rare even at the 'Centers of Excellence'. Many of the policy questions inviting social input, however (for example, the effects of a community level program on individual welfare) involve

problem specifications of the multilevel type. Participants were usually able to reach this level of analysis, but real comprehension came after the module and in the field.

A common learning sequence was sought in all the modules. To understand the logic of this sequence, it is necessary to discuss very briefly the group rather than individual emphasis. The group approach can be summarized as one of deliberating fomenting critical masses to reinforce intra-group dependence. At the outset, groups were assigned complex and ambiguous tasks and then subjected to substantial critique. Group exercises formed the core of all module organization. The exercises typically involved one day for preparation and at least half a day for presentation. Although group participants tended to array themselves in terms of their home institution positions, task complexity, the cumulative nature of module exercises and implicit and explicit encouragement of multiple participation in group presentations helped to keep intra-group communication intense while the moderately competitive inter-group environment and the critical posture of module resource persons maintained pressure for task completion. The ambiguous initial exercises helped to create this atmosphere.

In order to additionally channel group processes, a number of devices were used:

1. Meetings between individual groups and resource persons put considerable pressure on each group to come well prepared.
2. Groups would be periodically assigned complex tasks with very short time allowed for completion.

3. Reward mechanisms were almost never directed to an individual but rather were group focused.

The actual learning sequence moved from problem specification to problem solving. Four components constituted the increments of this movement:

1. Analyses of individucal research studies.
2. Comparative analyses of several research studies.
3. Redesigning existing studies to compensate for attributed problems.
4. Designing new studies.

In this progression, closure in some domains was deliberately balanced by unanswered or unresolved questions in other areas,--to make the movement more logical and to provide ample room for alternative approaches.

Assessing the Alternative

The ultimate test is utilization, --will a regularized relationship between the University teams and program decision-makers emerge? The pilot research which followed the modules was characterized in conception and implementation by careful attention to program input in overall research objectives. In one case, a local policy official was a member of the group involved in modular research training. The question is whether the pilot exercise can move to a second round of evaluative research with approximately the same levels of cooperation. The answer to that question will depend on the continued willingness of the Universities to accept limits on autonomous research problem definition and the ability of the concerned policy organizations to continue to expose shortfalls in performance to an external and not entirely predictable audience.

An important related question is the definition of appropriate reinforcement and follow-up. In most short-course situations, follow-up, if it exists, consists of learning assessment (for the trainers, not the users) and perhaps some form of reinforcement of curriculum materials (for example, the distribution of a manual). In the group approach, the foci of reinforcement are (1) the extension of curriculum materials through application and (2) strengthening the group itself. These foci probably preclude technical assistance to the extent that technical assistance mediates learning experiences and short-curcuits intra-group dependence. An alternative follow-up strategy is to (1) try to ensure that the organizational context of the University allows the group sufficient latitude to get a program started[6] and (2) encourage group learning with flexibility through cautious addition of new members and turnover.

Conclusion

Can modules be nodules? The answer lies not in the eloquence of their design, the ingenuity of their execution, nor even the sometimes spectacular but always temporary ripples they generate in some pond. The answer lies instead in perceived unconventional shorelines. The development of working relationships between development organizations and regional educational institutions may not provide a role for social scientists for the simple reason that such individuals may be very rare, but they can provide a role for social science inputs. An approach to developing and sustaining such capabilities was described.

NOTES

1. An important exception is the social science research stations project in Indonesia.
2. Research on local innovation provides a good example. There are numerous studies demonstrating the 'modern' attitudinal profiles characterizing innovators, but far fewer studies which assess the significance of 'modern' [i.e. Western] attitudes for particular types of behaviors in alternative sociocultural contexts.
3. The Regional Adaptive Technology Center project focuses on regional planning, rural industrialization and the diffusion of appropriate technologies. The project links Universities and appropriate planning agencies in the U.S., Thailand, Indonesia, the Philippines and South Korea.
4. The Rural Intermediate Organizations project focuses on the equity implications of alternative intermediate institutional arrangements. The project seeks to enhance the role of social science faculties in regional Universities in the design and evaluation of integrated rural development programs. The project includes the Philippines (Panay Island Consortium for Research on Agricultural Development-Compact Farm/Masagana 99/Samahang Nayon Programs); Indonesia (Gadja Mada University Institute for Rural and Regional Studies-BUUD Program); Bangladesh (Rajshahi University Institute of Bangladesh Studies-KSS/IRDP Program).
5. The foci of the workshops were: (1) Field problems in industrial extension: decision criteria for appropriate technologies [Koppel

and Morse, 1975]; (2) Action research and action evaluation design [Koppel, 1975a]: (3) Entrepreneurship training research needs [Koppel and Peterson, 1975]; (4) Research training on the role of intermediate organizations in integrated rural development [Koppel, 1975b].

6. This type of flexibility is more likely to be found in younger, regional educational institutions than in more rigidly organized 'Centers of Excellence'.

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